

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 and 2 (Canceled).

Claim 3 (Currently Amended) A recording / reproducing head for recording information in a dielectric material of a dielectric recording medium or reproducing information recorded in the dielectric material of the dielectric recording medium, the recording / reproducing head comprising:

 a supporting member of a longitudinal shape which is long in one direction and which comprises first and second opposed surfaces;

 a projection portion disposed on one end in the one direction of said supporting member and projecting from the first surface of the supporting member toward the dielectric material;

 a first electrode, which penetrates a ~~is penetrated from the~~ tip portion of said projection portion ~~and disposed in the central portion of said projection portion~~, for applying an electric field to the dielectric material, said first electrode extending through an opening formed in said supporting member from the second surface to the first surface thereof, and further extending to the tip portion through an opening centrally formed in the projection portion;

an electric conductor portion, which is disposed on the second [[a]] surface of said supporting member ~~opposite to the dielectric material~~, for providing ~~taking~~ an electric connection with said first electrode; and

a second electrode disposed on the first [[a]] surface of said supporting member so as to surround said first electrode ~~facing to the dielectric material~~.

Claim 4 (Original): The recording / reproducing head according to claim 3, wherein said recording / reproducing head is used as a device for reproducing the information from the dielectric recording medium on the basis of a scanning nonlinear dielectric microscopy method.

Claims 5 and 6 (Canceled).

Claim 7 (Currently Amended): A recording / reproducing head for recording information in a dielectric material of a dielectric recording medium or reproducing information recorded in the dielectric material of the dielectric recording medium, the recording / reproducing head comprising:

a supporting member of a longitudinal shape which is long in one direction and which comprises first and second opposed surfaces;

a projection portion disposed on one end in the one direction of said supporting member and projecting from the first surface of the supporting member toward the dielectric material;

a first electrode, which penetrates a ~~is penetrated from the~~ tip portion of said projection portion ~~and disposed in the central portion of said projection portion~~, for applying an electric field to the dielectric material, said first electrode extending through an opening formed in said

supporting member from the second surface to the first surface thereof, and further extending to the tip portion through an opening centrally formed in the projection portion;

a substrate, which is disposed so as to surround said first electrode, for fixing the other end of said supporting member in the one direction;

an electric conductor portion, which is disposed on the second [[a]] surface of said supporting member ~~opposite to the dielectric material~~, for providing ~~taking~~ an electric connection with said first electrode; and

a second electrode disposed on the first surface of said supporting member ~~facing to the dielectric material~~ so as to surround said first electrode.

Claim 8 (Original): The recording / reproducing head according to claim 7, wherein said recording / reproducing head is used as a device for reproducing the information from the dielectric recording medium on the basis of a scanning nonlinear dielectric microscopy method.

Claim 9-15 (Canceled).

Claim 16 (New): A recording/reproducing head comprising:

a substrate having first and second opposed surfaces, the substrate including a probe disposed on the first surface thereof and an opening which extends from the second surface thereof through to a tip portion of the probe;

a first electrode extending through the opening in the substrate; and

a second electrode which is disposed on the first surface of the substrate and surrounds the probe.

Claim 17 (New): The recording/reproducing head according to claim 16, further comprising:

a lead wire disposed on the second surface of the substrate and connected to the first electrode.

Claim 18 (New): The recording/reproducing head according to claim 16, wherein the substrate and the probe are integrally formed.

Claim 19 (New): A scanning nonlinear dielectric microscopy apparatus comprising the recording/reproducing head of claim 16.

Claim 20 (New): A recording/reproducing head comprising:
a substrate having first and second opposed surfaces and a central opening into which a cantilever portion thereof extends, the substrate including a probe disposed on the first surface thereof at the cantilever portion and an opening which extends from the second surface thereof through to a tip portion of the probe;

a first electrode extending through the opening in the substrate; and
a second electrode which is disposed on the first surface of the substrate and surrounds the probe.

Claim 21 (New): The recording/reproducing head according to claim 20, wherein the substrate and the probe are integrally formed.

Claim 22 (New): The recording/reproducing head according to claim 20, further comprising:

 a lead wire disposed on the second surface of the substrate and connected to the first electrode.

Claim 23 (New): A scanning nonlinear dielectric microscopy apparatus comprising the recording/reproducing head of claim 20.